

REMARKS/ARGUMENTS

Claim Rejections – 35 U.S.C. § 102

The Examiner has rejected claims 1-26 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,493,328 to Fong et al. (hereafter “Fong”). This rejection is respectfully traversed.

Claim 1 recites:

A method for controlling a plurality of communication sessions in a wireless communication system, the method comprising:
establishing a first communication session at a client device;
detecting a second communication session to be connected to the client device;
determining whether the second communication session is accepted on the client device;
determining whether the first communication session is put on hold on the client device to communicate data associated with the second communication session; if so,
intercepting data flow associated with the first communication session;
and
switching data flow associated with the second communication session to an existing air interface associated with the first communication session.

Claim 1 is directed to a method for controlling multiple communication sessions in a wireless communication system. Fong, in contrast, is directed to management of an active set (list) of base stations that support high data rate forward link transmissions. Fong does not relate to the management of multiple communication sessions in a wireless communication system.

The Examiner asserts that Fong teaches (i) establishing a first communication session at a client device and (ii) detecting a second communication session to be connected to the client device in column 2, lines 12-21. Column 2, lines 1-21 is recited below for the Examiner’s convenience.

In order to overcome the above cited shortcomings of the prior systems, among other shortcomings, a method for operating a cellular wireless network to service high data rate forward link transmissions for a mobile station actively manages the active set of base stations serving high data rate forward link transmissions. As a first operation according to the present invention, interaction

with legacy standard operations supported by the cellular wireless network to determine a legacy standard active set of base stations for the mobile station.

Then, a high data rate forward link active set of base stations is determined based upon the legacy standard active set of base stations. Next, the method includes transmitting blocks of packetized forward link data to the base stations of the high data rate forward link active set of base stations. With the packetized forward link data at the base stations, high data rate forward link data is transmitted from only one base station of the high data rate forward link active set of base stations to the mobile station.

The above cited portion of Fong relates to a process of determining an active set of base stations that supports high data rate forward link transmissions. This process includes first determining a set of legacy standard set of base stations (those that do not support high data rate transmissions). An active set of high data rate base stations is then determined based on the legacy standard active set of base stations.

The above portion of Fong (and that patent as a whole) does not describe establishing a first communication session with a client device and detecting a second communication session to be connected to the client device, as recited in claim 1. Therefore, claim 1 is not anticipated by Fong on at least this basis.

The Examiner further asserts that Fong discloses (i) determining whether the second communication session is accepted on the client device and (ii) determining whether the first communication session is put on hold on the client device to communicate data associated with the second communication session in column 5, lines 6-15, which is recited below for the Examiner's convenience.

In one limitation operation, the wireless network infrastructure does not notify a serviced mobile station of the change in its high data rate forward link active set of base stations until provisioning of resources has been completed and a corresponding transmit buffer has been filled. In another operation, upon the addition of the new base station(s) to the mobile station's active set of high data rate forward link active set of base stations, the mobile station sets a timer and does not access the new base station(s) until the timer expires. Of course various modifications of these techniques may be employed.

The foregoing portion of Fong relates to a process for notifying a serviced mobile station of a change in a high data rate forward link active set of base stations. In this method, the serviced mobile station is not notified of the change until provisioning of the resources (the added high data rate base station) has been completed and a corresponding transmit buffer has been filled. Alternatively, upon the addition of a new base station to a mobile station's active set of high data rate forward link base stations, a timer is set in the mobile station. Communication between the mobile station and the new base station does not occur until the timer has expired.

This portion of Fong relates only to the methods for deploying new high data rate base stations and adding those base stations to an active set of such base stations available to a serviced mobile station. Such an active set may be included in, for example, a preferred roaming list (PRL) that is maintained in the mobile station. This portion of Fong (and the patent as a whole) does not teach, disclose or describe (i) determining whether a second communication session is accepted on a client device and (ii) determining whether a first communication session is put on hold on the client device to communicate data associated with the second communication session, as is recited in claim 1. Therefore, these aspects further distinguish claim 1 from Fong.

The Examiner also asserts that Fong discloses, in the event that the second communication is accepted on the client device and the first communication session is put on hold, (i) intercepting data flow associated with the first communication session (column 12, lines 46-57); and (ii) switching data flow associated with the second communication session to an existing air interface associated with the first communication session (column 12, lines 39-46). For the Examiner's convenience, column 12, lines 36-57 of Fong are presented below.

... A user interface 1010 includes a display, a keyboard, a speaker, a microphone, and a data interface, and may include other user interface

components. The RF unit 1004, the processor 1006, the memory 1008, and the user interface 1010 couple via one or more communication buses/links. A battery 1012 also couples to and powers the RF unit 1004, the processor 1006, the memory 1008, and the user interface 1010.

Active Set Management Instructions (ASMI) 1016 are stored in memory 1008. The ASMI 1016 are downloaded to the processor 1006 as ASMI 1014 for execution by the processor 1006. The ASMI 1016 may also be partially executed by the RF unit 1004 in some embodiments. The ASMI 1016 may be programmed into the mobile station 1002 at the time of manufacture, during a service provisioning operation, such as an over-the-air service provisioning operation, or during a parameter updating operation. Upon their execution, the ASMI 1014 cause the mobile station 1002 to perform operations according to the present invention previously described with reference to FIGS. 1-8.

The foregoing portion of Fong relates to a user interface and the programming of a mobile station with Active Set Management Instructions. Such programming is described as being done at the time of the manufacture of the mobile station or being performed by over-the-air service provisioning during a parameter update operation. Such a user interface and programming process does not teach, disclose or describe intercepting data flow associated with a first communication session and switching data flow associated with a second communication session to an existing air interface associated with the first communication session, as is recited in claim 1. Based on the foregoing, Fong does not anticipate claim 1 as that patent does not teach each and every element of claim 1. Therefore, the rejection of claim 1 should be withdrawn.

Without addressing the merits of the Examiner's statements regarding claims 2-7, which are not conceded, Applicants point out that these claims depend ultimately from claim 1 and include all of its limitations, as well as the limitations of any intervening claims. Thus, the arguments made above regarding claim 1 apply to these claims as well and are herein incorporated. Therefore, it is respectfully requested that the rejection of claims 2-7 be withdrawn.

The Examiner has rejected claim 8 on the same basis as claim 1. Claim 8 includes limitations that are analogous to those discussed above with respect to claim 1. Therefore, claim 8 is not anticipated by Fong for substantially the same reasons described above with respect to claim 1, and it is respectfully requested that the rejection of claim 8 be withdrawn. It is noted that claim 8 also includes other limitations that are not necessarily analogous with the limitations of claim 1. For example, claim 8 recites sending a policy control management message to a serving node associated with a mobile terminal, while claim 1 does not recite such a limitation.

Without addressing the merits of the Examiner's statements regarding claims 9-12, which are not conceded, Applicants point out that these claims depend ultimately from claim 8 and include all of its limitations, as well as the limitations of any intervening claims. Thus, the arguments made above regarding claim 8 apply to these claims as well and are herein incorporated. Therefore, it is respectfully requested that the rejection of claims 9-12 be withdrawn.

The Examiner has rejected independent claims 13, 18 and 22 on the same basis. It is noted that while claims 13, 18 and 22 contain certain similar limitations, those claims also include limitations that are not necessarily analogous with the other claims. However, because the Examiner has rejected these claims on the same basis, Applicants address the Examiner's rejection as set forth in paragraph 9 of the Office Action to overcome the rejection of claims 13, 18 and 22.

The Examiner asserts that Fong discloses a method of controlling a plurality of communication session on a mobile node. As was discussed above, Fong is directed to a method of managing an active set of base stations that support high data rate forward link transmission in

a wireless communication network. Fong does not relate to the management of multiple communication sessions on a mobile node.

In support of the rejection of claims 13, 18 and 22, the Examiner asserts that Fong discloses, in column 2, lines 12-21; (i) communicating data associated with a first communication session on a mobile node; and (ii) receiving a first signaling message on a mobile node, where the first signaling message indicates the occurrence of a second communication session to be connected to the mobile node. Column 2, lines 1-21 were presented above in the discussion set forth with respect claim 1. As was described above, this section of Fong relates to a process of determining an active set of base stations that supports high data rate forward link transmissions. It does not teach, disclose or describe the foregoing aspects of the rejected claims. For example, there is no teaching in Fong of multiple communication sessions that are associated with a mobile node.

The Examiner further asserts that Fong discloses, in column 13, lines 52-60; (i) notifying a user of the mobile node about the second communication session, where the user is notified using an identifier selected on the mobile node based on a data type associated with the second communication session and (ii) determining if the second communication session is accepted by the user. Column 13, lines 52-60 of Fong are presented below for the Examiner's convenience.

Apart from the functions of the present invention, the PDSN 1200 performs functions that are basically the same as those performed by the Network Access Server (NAS) in data networks. A NAS is the entry point to the network and provides the end user with access to network services. In a CDMA2000 system, the PDSN is the entry point to the public data network for MSs. The PDSN resides on the network edge and controls access to network services.

The foregoing portion of Fong describes the role of a packet data serving node (PDSN) in a wireless communication network. Specifically, it describes that the PDSN provides access to network services. This portion of Fong contains no teaching of notifying a user of a second

communication session where the notification is based on a data type associated with the second communication session. Furthermore, the portion of Fong presented above does not teach disclose or describe determining whether the second communication session is accepted by the user. The portion of Fong relied on by the Examiner is merely a statement of the role of a network access server and/or a PDSN in a wireless communication network.

The Examiner also asserts that Fong discloses, in column 11, lines 5-29, in the event the user accepts the second communication session; (i) sending a signaling message from the mobile, where the message includes instructions to put a first communication session on hold and activate the second communication session; (ii) intercepting a first data flow associated with the first communication session; and (iii) switching a second data flow associated with the second communication session to an air interface associated with the first communication session.

Column 11, lines 5-29 of Fong are recited below for the Examiner's convenience.

FIG. 8 is a logic diagram illustrating operation according to a second embodiment of the present invention in adding a base station to the high data rate forward link active set of base stations. As shown in step 802, the mobile station reports the strengths of received pilot signals to the radio access network via a serving base station (step 802). The radio access network then determines to alter the high data rate forward link active set of base stations based upon the received pilot signal strengths by the mobile station (step 804). The radio access network then informs the mobile station of the newly assigned high data rate forward link active set of base stations (step 806).

However, because the new base station of the high data rate forward link active set of base stations does not have resources allocated or have its D-RLP buffer filled, the newly added base station is not available for high data rate forward link transmissions. Thus, while the radio access network allocates resources at the new base station and starts transmitting user data to the new base stations (step 808), the mobile station delays access to the new base station to allow time for resources to be allocated and for the buffers to be filled (step 810). Thus, the mobile station will not request the new base station to transmit forward link high data rate data until the newly added base station is ready for such transmissions.

The foregoing portion of Fong is related to a process for adding a new high data rate forward link base station to the active set of such base stations. The process includes altering the active set

based on received pilot strength signals as reported to a radio access network by a mobile station. Once the active set is updated, the radio access network notifies the mobile station. The newly added base station is not accessed by the mobile station until provisioning of the base station is complete. Fong does not describe (i) sending a signaling message from the mobile station, where the message includes instructions to put a first communication session on hold and activate the second communication session; (ii) intercepting a first data flow associated with the first communication session; and (iii) switching a second data flow associated with the second communication session to an air interface associated with the first communication session. Fong instead describes a process of changing access from one base station to another base station (for a single communication session) based on pilot signal strengths as received at the mobile station. Based on the foregoing, Fong does not anticipate claims 13, 18 and 22, and the rejection of these claims should be withdrawn.

Without addressing the merits of the Examiner's statements regarding claims 14-17, which are not conceded, Applicants point out that these claims depend ultimately from claim 13 and include all of its limitations, as well as the limitations of any intervening claims. Thus, the arguments made above regarding claim 13 apply to these claims as well and are herein incorporated. Therefore, it is respectfully requested that the rejection of claims 14-17 be withdrawn.

Without addressing the merits of the Examiner's statements regarding claims 19-21, which are not conceded, Applicants point out that these claims depend ultimately from claim 18 and include all of its limitations, as well as the limitations of any intervening claims. Thus, the arguments made above regarding claim 18 apply to these claims as well and are herein

incorporated. Therefore, it is respectfully requested that the rejection of claims 19-21 be withdrawn.

Without addressing the merits of the Examiner's statements regarding claims 23-26, which are not conceded, Applicants point out that these claims depend ultimately from claim 22 and include all of its limitations, as well as the limitations of any intervening claims. Thus, the arguments made above regarding claim 22 apply to these claims as well and are herein incorporated. Therefore, it is respectfully requested that the rejection of claims 23-26 be withdrawn.

Conclusion

Based on the foregoing, all claims pending in the application are in condition for allowance. Therefore, an indication of such allowance is respectfully requested. If the Examiner has any questions or items that may be addressed by telephone, he is invited to contact the undersigned at 360.379.6514.

Respectfully Submitted,

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